

REMARKS

Claims 1-21 are pending in this application. Claims 1, 11 and 21 were amended in this response. No new matter has been introduced as a result of the amendments. Support for the amendments may be found, for example, in FIG. 4, and page 4, line 19 - page 5, line 13.

Applicant herein requests an Examiner Interview regarding the current rejection, and the present amendments. Despite detailed arguments put forward by the Applicant, it has become increasingly difficult to understand the positions taken by the Office, due to the repeated citations to the same portions of the prior art, without further explanation. Applicant kindly requests the examiner contact the undersigned to arrange an appropriate time to conduct the Interview.

Claims 1-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Damgaard et al.* (US Patent No. 6,670,849) in view of 3GPP TS 45.005 v5.20, (hereafter "3GPP"). For the following reasons, Applicant respectfully traverses the Examiner's rejection and respectfully requests withdrawal of same. Favorable reconsideration is respectfully requested.

Under the present amendments, the independent claims recite "performing time masking on a signal having data bursts to select at least one time window during which tail symbols of a first data burst are sent, wherein the time window has a predetermined length and is located at one of a beginning and an end of the time during which the payload data are sent, and wherein the non-constant-envelope modulation is made more constant" and "measuring a first voltage corresponding to the output power of the signal only in the at least one time window selected by the time masking." Furthermore, the claims recite the features of "comparing the first voltage with a reference voltage and producing a comparison result; and adjusting a control signal used in the amplifying step after a predetermined time delay, occurring after the time window has lapsed, if the comparison result indicates that the voltage deviates more than a predetermined threshold value from the reference voltage."

As argued previously by Applicant, *Damgaard* discloses a system for closed loop power control using a linear or non-linear power amplifier (see Abstract). Under the system, a first modulated signal is supplied to a power amplifier, where a portion of an output of the power

amplifier is detected in a closed power control feedback loop, and the output power of the power amplifier is adjusted based upon the detected portion of the output of the power amplifier and a reference signal. A second modulated signal is then injected into the feedback loop using a variable gain element (col. 3, lines 1-9). *Damgaard* teaches that the injected second modulated signal is an inverted version of a desired amplitude modulated (AM) signal, in order to make the AM component invisible in the feedback loop, and the feedback loop will therefore act only upon the average power of the signal to allow the closed power control feedback loop to provide closed loop power control in a system in which both a phase modulated (PM) component and an AM component are supplied as input to a power amplifier (col. 3, lines 22-32; col. 8, lines 25-33).

In contrast to the present claims, *Damgaard* does teach or suggest a power control system having corresponding parts for obtaining a first voltage corresponding to a power of the amplified signal. In col. 5, lines 38-41, *Damgaard* only outlines that the power amplifier amplifies the modulated signal to an appropriate power level. Also, *Damgaard* does also not teach measuring the power level and determining a corresponding voltage based on a current measurement. The assertion that a voltage is known if the power is known is not correct.

Damgaard is also silent regarding the feature which recites that, through time masking, at least one time window is selected which has a predetermined length and is located at a point where tail symbols of a first data burst are sent, wherein the non-constant-envelope modulation is made more constant. *Damgaard* is wholly silent regarding such a configuration since the principle of operation is premised on making the AM component invisible in the feedback loop by injecting a second modulated signal which is an inverted version of the desired AM signal. Also, *Damgaard* fails to teach or suggest adjusting a control signal of the amplifier after a predetermined time delay occurs after the time window has lapsed.

Despite the interpretation being maintained by the Office, the amended claims make clear that the time window has a predetermined length and is located at one of a beginning and an end of the time during which the payload data are sent - such a configuration is neither taught nor suggested by *Damgaard*. Furthermore, the amended claims recite that the first voltage corresponding to the output power of the signal is measured only in the at least one time window selected by the time masking

The 3GPP document fails to solve the deficiencies of Damgaard, discussed above. Regarding the 3GPP document, the reference shows in figure B.2 in Annex B a function of the transmitted power level versus time for normal duration bursts at 8-PSK modulation. According to section 4.5.1 of Annex B, a template is disclosed (i.e. a standardized format for the output power relative to time when sending a burst), where, in order to generate such a burst, special circuitry is needed. However, the present claims are not directed at generating a burst, but instead recites evaluating the burst using the time windows (selected by the time masking parts), where tail symbols of the data burst are sent. Thus, Annex B of the 3GPP document clearly does not teach the claimed configuration.

Furthermore, there is no teaching, suggestion or motivation to one having ordinary skill in the art to combine the above documents in the manner suggested in the office action. Applicant respectfully submits that the Office Action has improperly piecemealed individual features from multiple references to arrive at the present rejection. “[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR Int’l Co. v. Teleflex Inc.* 550 U.S. ____ (2007) (slip op. at 14). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Appellant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). It is “impermissible to use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious.” *In re Fritch*, 23 U.S.P.Q.2d 1780, 1784 (Fed. Cir. 1992). “One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention” *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). “A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments relying on *ex post* reasoning.” *KSR v. Teleflex*, at 17.

It is entirely unclear to the Applicant how the 3GPP document is relevant to the teaching of *Damgaard*. Furthermore, the stated reason for combining the references simply doesn’t make sense. The Office Action states that “it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the GSM-EDGE system of Damgaard with the time mask circuitry of 3GPP for the purpose of enabling said system to meet the requirements of

the pan-European digital cellular telecommunications systems, which is GSM-based.” (Page 4, last paragraph). How exactly does the time masking feature “enable” the closed loop power control of Damgaard to be compliant with pan-European digital cellular telecommunication networks? The generation of a burst as disclosed in 3GPP has no bearing on the operation of *Damgaard*. Furthermore, the disclosure in *Damgaard* is not directed to GSM, which employs GSMK for PM signals (col. 1, lines 24-28), but goes to GDM-EDGE, which employs both AM and PM signals (col. 2, lines 35-39). As explained above, *Damgaard* operates by making the AM component invisible in the feedback loop by injecting a second modulated signal which is an inverted version of the desired AM signal. It is not understood how the burst generating time mask of 3GPP could even be implemented in the configuration of *Damgaard*.

Moreover, the Office Action baldly concludes that measuring power must occur during a particular time period (page 3), and thus can be interpreted as a “time window.” Paradoxically, the Office Action then turns to 3GPP for “masking” the very time period in which measurements are taken? Again, this runs counter to logic and the express teachings of *Damgaard*. Moreover, the Office Action additionally states that in FIG. B2 of 3GPP, the use of the two windows “enable the 8PSK modulation, which is a non-constant envelope modulation, to be more constant.” Again, Applicant cannot find any support for this position anywhere in 3GPP. Furthermore, exactly how can the 8PSK modulation be conceivably incorporated into the teaching of *Damgaard*? To date, the Office Actions have failed to reconcile any of Applicants arguments.

For at least these reasons, Applicant submits the rejection is improper and should be withdrawn. As such, Applicant respectfully submits that all of the claims of the present application, as amended, are patentable, and respectfully requests that a timely Notice of Allowance be issued in this case. If any additional fees are due in connection with this application as a whole, the office is hereby authorized to deduct said fees from Deposit Account No.: 02-1818. If such a deduction is made, please indicate the attorney docket number (0112740-868) on the account statement.

Respectfully submitted,

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